

Hoophouses

Hoophouses are plastic-enclosed structures made of arches or "hoops" of pipe. They are typically used in gardens as a way to lengthen the growing season, but they can also be used for firewood storage or as a temporary garage or workshop. Hoophouses rest directly over the soil in the garden and can even be placed over existing beds. Hoophouses are inexpensive and easy to construct.



By growing plants in a hoophouse, you can extend the growing season by several months. Because a hoophouse traps heat and warms the soil, you can sow seeds much earlier in the year than you could in an open garden. A hoophouse protects your plants from wind and frost, enabling you to grow a wider variety of plants through fall and into winter. A hoophouse also prevents heavy rain from damaging your plants, compacting the soil, and washing seeds away. In addition, a hoophouse will help minimize insect infestations.

If you live in an area that has very warm summer temperatures, you will need to open both ends of the hoophouse for ventilation. The sides can be constructed in such a way that the plastic can be rolled up for additional air circulation. Or, you can completely remove the plastic covering for the summer.

Your hoophouse should be situated on a well-drained level spot that receives as much sunlight as possible. It should be located near a water source. Unlike a greenhouse, a hoophouse is not usually heated in the winter. If you plan to heat yours, you will need access to electricity.

Hoophouses can be assembled in a day with minimal skills and tools. They can be built in just about any size; the length is easily adjusted by adding or removing support hoops and plastic covering. Because a hoophouse is a portable structure, you probably won't need a building permit, but check with your local authorities to be sure.

Most hoophouses are made using PVC pipe for the hoop structure, but galvanized electrical conduit can also be used. The hoops are secured to the ground either by slipping them over rebar that has been hammered into the soil or by fastening them to a lumber framework. After the hoops are in place, the structure is covered with clear 6-mil polyethylene plastic sheeting. The plastic sheeting can be fastened to the frame in several ways, such as using short lengths of PVC pipe that have been slit, clips, screws, bolts, or staples.

Tools required will vary depending on the materials you use to build your hoophouse, but typically include a hacksaw or pipe cutting tool, a utility knife, a drill or staple gun, and a tape measure.

Complete instructions and materials lists for building a hoophouse are available on several Web sites including:

- [Portable Field Hoophouse](#). WSU Extension Manual EM015.
- [A Small Backyard Greenhouse for the Home Gardener](#). North Carolina Cooperative Extension Service.
- [How to Build a PVC Hoophouse for your Garden](#). The Westside Gardener.
- [Plans for a 32' x 10' x 10' Greenhouse](#). FloridaGardener.com
- [How to build a Hoop House](#). By Jim Kilbert.

If you don't want to bother locating and purchasing all the materials separately, you can order a hoophouse kit. An online Web search in July 2004 revealed that hoophouse kits are available in a variety of sizes and can be purchased from several companies, such as [Hoophouse Greenhouse Kits](#).

Once your hoophouse is finished, create raised beds, put down heavy paper or bark on the center walkway, install drip lines or soaker hoses, and get ready to plant!

References

Boyette, M.D. and T.E. Bilderback. [A Small Backyard Greenhouse for the Home Gardener](#). North Carolina Cooperative Extension Service. North Carolina State University. Retrieved June 30, 2004.

Emery, Carla. *The Encyclopedia of Country Living*. Sasquatch Books. Seattle, WA. 1994.

Kilbert, Jim. [How to build a Hoop House](#). Retrieved June 30, 2004.

Miles, Carol A. and Pat Labine. EB1825 [Portable Field Hoophouse](#). Washington State University Cooperative Extension. 1997.

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